

CLAIMS

1. Method for management of communication in a communication network (100) comprising at least one transmission device (101) and at least one terminal terminal (102) adapted to receiving data from the said at least one transmission device,

characterised in that it comprises the following steps:

- 10 - setting up (304, 309, 312) a communication between one of the said transmission devices called the transmission device, and one of the said terminals called the receiving terminal, using a first communication mode based on a
- 15 single carrier modulation; and
- changeover to a second communication mode (307, 310) using a multiple carrier modulation (OFDM), a communication channel using the said multiple carrier modulation being assigned to
- 20 the communication between the said transmission device and the said receiving terminal;

the first and second communication modes being implemented successively and alternately.

2. Method according to claim 1, characterised in that the said modulation is an OFDM type modulation with a guard interval.

3. Method according to claim 1, characterised in that the said modulation is an IOTA type modulation.

4. Method according to any one of claims 1 to 3,

characterised in that the said first communication mode is adapted to carrying out operations for management of setting up (301, 302, 304), maintaining (309), and closing (312) of a communication between
5 the transmission device and the receiving terminal.

5. Method according to any one of claims 1 to 4, characterised in that the said communication network is a mobile communication network (UMTS).

6. Method according to claim 5, characterised in
10 that the said first communication mode uses at least one common channel (FACH) that is intended to all the terminals managed by the said transmission device.

7. Method according to claim 6, characterised in
15 that the said first communication mode uses at least one access channel type (FACH) downlink common channel, enabling the said changeover to the said second communication mode.

8. Method according to any one of claims 1 to 7, characterised in that the said first communication
20 mode uses at least one uplink common channel (RACH) to acknowledge data transmitted correctly to the said reception terminal when the second communication mode is being used.

9. Method according to any one of claims 1 to 8,
25 characterised in that the said second communication mode (OFDM) is adapted to transmitting data at high speed between the said transmission device and the said reception terminal.

10. Method according to claim 9, characterised in

that the said second communication mode is adapted to transmitting Internet type data to the said reception terminal.

11. Method according to any one of claims 1 to 10, characterised in that the said transmission device is a base station in a cellular communication network.

12. Communication network signal (100) comprising at least one transmission device (101) and at least one terminal (102) adapted to receiving data from the said at least transmission device,

characterised in that it comprises two communication modes, called first and second communication modes respectively:

- the first communication mode based on a single carrier modulation, being used when setting up (304, 309, 312) a communication between at least one of the said transmission devices, called the transmission device, and one of the said terminals called the reception terminal; and

- the second communication mode (307, 310) using a multiple carrier modulation (OFDM) being used on a communication channel using the said multiple carrier modulation, assigned to communication between the said transmission device and the said receiving terminal,

the first and second communication modes being used successively and alternately.

13. Transmission device (101) designed to be

implemented in a communication network (100) comprising at least one terminal (102) adapted to receiving data from the said transmission device,

characterised in that it includes the following
5 means:

- means of setting up a communication between the said transmission device and one of the said terminals, called the receiving terminal, using a first communication mode (304, 309, 312)
10 based on a single carrier modulation; and
- means of changing over to a second communication mode (307, 310) using a multiple carrier modulation (OFDM), a communication channel using the said multiple carrier
15 modulation being assigned to communication between the said transmission device and the said receiving terminal;

the said first and second communication modes being used successively and alternately.

20 14. Receiving terminal (102) that designed to be implemented in a communication network (100) comprising at least one transmission device (101), the said terminal being adapted to receiving data from the said at least one transmission device,

25 characterised in that it comprises the following means:

- means of setting up a communication between one of the said transmission devices, called the transmission device, and the said terminal

- using a first communication mode (304, 309, 312) based on a single carrier modulation; and
- 5 - means of changing to a second communication mode (307, 310) using a multiple carrier modulation (OFDM), a communication channel using the said multiple carrier modulation being assigned to communication between the said transmission device and the said receiving terminal;
- 10 the said first and second communication modes being used successively and alternately.